

INTERNATIONAL SEARCH REPORT

GB2004/001172

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F04B33/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 202 12 893 U (HEPFNER HARRY) 6 February 2003 (2003-02-06)	1, 2, 4-6
Y	abstract; figures 1, 2 page 6, line 9 - page 6, line 21 -----	3
X	US 4 842 290 A (ALIOTO KEVIN J) 27 June 1989 (1989-06-27)	1-6
Y	abstract; figures column 3, line 35 - column 3, line 39 -----	1, 3
X	US 5 499 858 A (HER JERN-SHONG) 19 March 1996 (1996-03-19)	1-6
Y	abstract; figures -----	1
X	US 5 137 430 A (ALIOTO KEVIN J) 11 August 1992 (1992-08-11) column 4, line 17 - column 4, line 23; figures -----	1
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

9 November 2004

Date of mailing of the international search report

17/11/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 347 913 A (STEPNER DAVID E) 20 September 1994 (1994-09-20) abstract; figures 1,2 -----	1

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			WO 2004042230 A1	21-05-2004
US 4842290	A	27-06-1989	US 5016894 A	21-05-1991
			US 5137430 A	11-08-1992
US 5499858	A	19-03-1996	NONE	
US 5137430	A	11-08-1992	US 4842290 A	27-06-1989
			US 5016894 A	21-05-1991
US 5347913	A	20-09-1994	NONE	